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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

BERNARDI, BRENDA C

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/587,570	Applicant(s) LEE ET AL.	
	Examiner BRENDA BERNARDI	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 10 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Masayoshi, et al., EP 1,148,479.

Regarding claim 10, Masayoshi '479 discloses an apparatus comprising a pickup unit that emits a light beam onto the information storage medium during a data reproducing operation of the apparatus, receives a reflected light beam from the information storage medium, and outputs the reflected light beam, the reflected light beam being produced by the information storage medium reflecting the light beam emitted from the pickup unit, the pickup unit receiving a control signal that controls a read power of the light beam during the data reproducing operation (claims 13 and 14); a signal processing unit that receives the reflected light beam from the pickup unit, detects a data reproduction signal from the reflected light beam, and outputs the data reproduction signal including the different optimal read power information recorded on the information storage medium (claims 13 and 14); and a control unit that receives the data reproduction signal from the signal processing unit, stores the different optimal read power information included in the data reproduction signal, generates a control signal to control the read power of the light beam emitted from the pickup unit to be a

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respective one of the different optimal read powers specified by a respective one of the different optimal read power information corresponding to a type of a data area of the information storage medium from data is to be reproduced, and outputs the control signal to the pickup unit (claims 13 through 15).

Regarding claim 12, Masayoshi '479 discloses wherein the information storage medium is a super-resolution information storage medium from which data is reproduced using a super-resolution effect (paragraphs [0038] and [0039]).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masayoshi, et al., EP 1,148,479 in view of Okumura US 5,444,687.

Regarding claim 1, Masayoshi '479 discloses a lead-in area storing basic information regarding the information storage medium (page 4, paragraph [0024]); a plurality of types of data areas requiring different optimal read powers (page 4, paragraphs [0035] and [0036]); wherein different optimal read power information respectively specifying the different optimal read powers for the plurality of types of data areas are recorded on the information medium (page 4, paragraph [0036]).

Masayoshi '479 fails to disclose a lead-out area indicating an end of the information storage medium.

However, Okumura '687 teaches a lead-out area indicating an end of the information storage medium (column 10, line 33).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Masayoshi '479 by providing the arrangement as taught by Okumura '687 in order to provide for a transition from recording/reproducing to a stop condition as is well known in the art.

Regarding claim 2, Masayoshi '479 discloses wherein the different optimal read power information are recorded in the lead-in area and/or the lead-out area (page 4, paragraph [0024]).

Regarding claim 6, Masayoshi '479 discloses wherein the plurality of types of data areas comprise a super-resolution area on/from which information is recorded/reproduced using a super-resolution effect (paragraphs [0038] and [0039]).

Regarding claim 14, Masayoshi '479 as modified above discloses all the limitations of the instant claimed invention (see the rejection applied in claim 10 above). However, Masayoshi '479 discloses wherein the information storage medium further comprises a lead-in area and wherein the different optimal read power information are recorded in the lead-in area and/or the lead-out area.

Masayoshi '479 fails to disclose the lead-out area.

However, Okumura '687 teaches a lead-out area (column 10, line 33).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Masayoshi '479 by providing the

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arrangement as taught by Okumura '687 in order to provide for a transition from recording/reproducing to a stop condition as is well known in the art.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Masayoshi, et al., EP 1,148,479 in view of Okumura US 5,444,687, further in view of Inagaki et al., US 5,568,467.

Regarding claim 3, Masayoshi '479 as modified above discloses all the limitations of the instant claimed invention (see the rejection applied in claim 1 above). However, Masayoshi '479 does not but Inagaki '467 does disclose a control data zone; wherein the control data zone comprises a plurality of reserved fields; and wherein the different optimal read power information are respectively recorded in arbitrary ones of the reserved fields of the control data zone (abstract, Table 3).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Masayoshi '479 as modified above by providing the arrangement as taught by Inagaki '467 in order to provide for a clear and optimally sized format for a plurality of bands as is well known in the art.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Masayoshi, et al., EP 1,148,479 in view of Okumura US 5,444,687, further in view of Sano, US 5,701,281.

Regarding claim 4, Masayoshi '479 as modified above discloses all the limitations of the instant claimed invention (see the rejection applied in claim 1 above). However, Masayoshi '479 does not but Sano '281 does disclose wherein the different

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optimal read power information are respectively recorded in one-byte units; wherein each of the one-byte units comprises eight bits (column 4, lines 44-45 and Figure 3).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Masayoshi '479 as modified above by providing the arrangement as taught by Inagaki '467 in order to provide for a standard size for specifying read power as is well known in the art.

Sano fails to disclose wherein four most significant bits of the eight bits of each of the one-byte units express an integer part of a respective one of the different optimal read powers specified by a respective one of the different optimal read power information recorded in the one-byte unit; and wherein the four least significant bits of the eight bits of each of the one-byte units express a fraction part of a respective one of the different optimal read powers specified by a respective one of the different optimal read power information recorded in the one-byte unit. However, the combination of least significant and most significant bits is obvious to try, see *KSR International Co. v. Teleflex Inc.*, 550 USPQ2d 1385 (2007).

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Masayoshi, et al., EP 1,148,479 in view of Okumura US 5,444,687, further in view of Bakx et al., US 6,785,196.

Regarding claim 5, Masayoshi '479 as modified above discloses all the limitations of the instant claimed invention (see the rejection applied in claim 1 above). However, Masayoshi '479 does not but Bakx '196 does disclose wherein the different optimal read power information are recorded as prepits or wobble grooves to prevent

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the different optimal read power information from being changed when user data is recorded on the information storage medium (column 7, lines 18-22).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Masayoshi '479 as modified above by providing the arrangement as taught by Bakx '196 in order to provide more accurate timing information and thereby more accurate parameter information such as read power as is well known in the art.

8. Claims 7, 9 and 11-13 are rejected under 35 U.S.C. 103(a) as unpatentable over Masayoshi, et al., EP 1,148,479 in view of Ohno et al., US 5,247,494.

Regarding claim 7, Masayoshi '479 discloses a method of recording/reproducing data on/from an information storage medium comprising a plurality of types of data areas requiring different optimal read powers, the method comprising: recording different optimal read power information respectively specifying the different optimal read powers for the plurality of types of data areas on the information storage medium (page 4, paragraphs [0035] and [0036]); reading all of the different optimal read power information from the information storage medium (page 5 and 6 paragraphs [0043] through [0051]); and reproducing data from any type of the plurality of types of data areas using a respective one of the different optimal read powers specified by a respective one of the different optimal read power information corresponding to a type of a data area from which data is to be reproduced (page 5 and 6 paragraphs [0043] through [0051]).

Masayoshi '479 fails to disclose a hybrid information storage medium.

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However, Ohno '494 teaches a hybrid information storage medium (abstract).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Masayoshi '479 by providing the arrangement as taught by Ohno '494 in order to provide for different uses of the plurality of types of data areas as is well known in the art.

Regarding claim 9, Masayoshi '479 as modified above discloses all the limitations of the instant claimed invention (see the rejection applied in claim 7 above). Specifically, Masayoshi '479 discloses controlling an output power of a laser diode to be a respective one of the different optimal read powers specified by a respective one of the different optimal read power information corresponding to the type of the data area from which data is to be reproduced; and reproducing data from the data area from which data is to be reproduced using a light beam emitted from the laser diode (page 4, paragraph [0036]).

Regarding claim 11, Masayoshi '479 discloses all the limitations of the instant claimed invention (see the rejection applied in claim 10 above).

Masayoshi '479 fails to disclose wherein the plurality of types of data areas of the information storage medium comprise a read-only data area and a writable data area.

However, Ohno '494 teaches the plurality of types of data areas of the information storage medium comprise a read-only data area and a writable data area (abstract).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Masayoshi '479 by providing the

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arrangement as taught by Ohno '494 in order to provide for different uses of the plurality of types of data areas as is well known in the art.

Regarding claim 12, Masayoshi '479 discloses all the limitations of the instant claimed invention (see the rejection applied in claim 11 above). Specifically, Masayoshi '479 discloses wherein the information storage medium is a super-resolution information storage medium from which data is reproduced using a super-resolution effect (paragraphs [0038] and [0039]).

Regarding claim 13, Masayoshi '479 discloses all the limitations of the instant claimed invention (see the rejection applied in claim 10 above).

Masayoshi '479 fails to disclose wherein the plurality of types of data areas comprise a super-resolution data area from which data is reproduced using a super-resolution effect, and a normal data area from which data is reproduced without using the super-resolution effect

However, Ohno '494 teaches the plurality of type of data areas (abstract).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Masayoshi '479 by providing the arrangement as taught by Ohno '494 in order to provide for different uses of the plurality of types of data areas as is well known in the art.

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Masayoshi, et al., EP 1,148,479 in view of Ohno et al., US 5,247,494, further in view of Okumura US 5,444,687.

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Regarding claim 8, Masayoshi '479 as modified above discloses all the limitations of the instant claimed invention (see the rejection applied in claim 7 above). Specifically, Masayoshi '479 discloses wherein the hybrid information storage medium comprises a lead-in area wherein the different optimal read power information are recorded in the lead-in area and/or the lead-out area (page 4, paragraph [0024]).

Masayoshi '479 fails to disclose a lead-out area.

However, Okumura '687 teaches a lead-out area indicating an end of the information storage medium (column 10, line 33).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Masayoshi '479 by providing the arrangement as taught by Okumura '687 in order to provide for a transition from recording/reproducing to a stop condition as is well known in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRENDA BERNARDI whose telephone number is (571)270-7125. The examiner can normally be reached on 5:30 to 2:00 M thru F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRENDA BERNARDI/
Examiner, Art Unit 2627

/Thang V. Tran/
Primary Examiner, Art Unit 2627